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EXAMINER	
KWAK, DEAN P	
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1797	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/553,564	MAGNALDO ET AL.	
	Examiner	Art Unit	
	Dean Kwak	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2009* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 01/21/2009. These drawings are acceptable.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 12 & 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1 & 12, the recitation "levels" renders the claims unclear because it is not clear what levels represent. It is also vague in scope of what physical sample characteristic is meant by "representative of the characteristics of the sample".

Regarding Claim 18, the Claim fails to point out and further limit what applicant regards as the invention, whereas it appears that the parent claim 12 has already claimed the element of a T-Shaped branch which is in a connection to the outlet, syringe and reaction loop.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by O'Lear et al. (US 5,252,486).

Regarding Claim 1, O'Lear et al. disclose a method for analyzing a liquid sample (Abstract) by injecting the latter in a reaction loop (e.g. coil of tubing, Fig. 1 (41), C12/L57-58) coupled with illumination means and detection means, characterized in that it comprises the following steps:

- filling a reaction loop with a minimum volume of the sample to be analyzed (C5/L34-36), through a first input of a T-shaped branch (e.g. T-connector, Fig. 1 (35)) and its output, this reaction loop sample forming a transparent pipe

(C13/L2) with which detection means (e.g. colorimeter, Fig. 1 (49), C12/L68) are coupled,

- injecting at least one fixed volume of at least one reagent (e.g. color-forming reagent, C12/L39) into the reaction loop via a second input of the T-shaped branch,
- detecting levels of filtered light (e.g. 600-850 nm filter, C4/L39) by the detection means, the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent,
- discharging the reagents located in the reaction loop (e.g. waste, C12/L30).

Regarding Claims 2-8, O'Lear et al. further disclose the method, wherein:

- a concentration gradient is detected in the reaction loop (see determination of concentration at designated intervals, C4/L9-22);
- the reaction loop is a transparent capillary or a microfluidic channel (e.g. internal diameter of 0.0125 cm, C5/L28);
- the discharge of the reagents located in the reaction loop is performed by means of the remaining sample (C5/L5-7);
- the discharge of the reagents located in the reaction loop is performed by means of the next sample (C12/L28-31);
- the sample flux is not interrupted, which allows continuous analysis (e.g. continuous supply of fresh sample, C12/L31);

- fixed volumes of reagents are successively injected during predefined time intervals (C4/L19-22); and
    - a series of pulses of reagents is produced at flow rates of the order to 10 to 1,000 μL/min (e.g. 0.15 ml/min or 150 μL/min, C5/L34) followed by a waiting time;

Regarding Claim 9, O'Lear et al. further discloses the method, wherein:

- linear detection (e.g. colorimeter, Fig. 1 (49), C12/L68) is performed along the reaction loop.

Regarding Claim 9, with obtained information from the system, it is possible that the recited claim limitations can be achieved.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 10 & 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Lear et al. (US 5,252,486) as respectively applied to claim 1 above, and further in view of Pawliszyn (US 4,940,333).

Regarding Claims 10 & 11, O'Lear et al. disclose all the claim limitations as set forth above. However, O'Lear et al. fail to disclose a method for analyzing a liquid sample comprising a movable point detector.

Pawliszyn discloses a method for analyzing a liquid, wherein:

- a concentration gradient is detected in the reaction loop (Abstract);
- the reaction loop is a transparent capillary or a microfluidic channel (e.g. capillary, Fig. 9 (51), C9/L41);
- the discharge (e.g. discharge tube, Fig. 10 (77)) of the reagents located in the reaction loop is performed by means of the next sample (C10/L23-26);

- a point detection (e.g. optical fiber, Fig. 10 (79 & 83), C10/L26 & 30) is achieved in a location of the reaction loop so that it is possible to obtain a time plot of the reactions in a location of the set: reaction loop and detection means; and
- a point sensor is used, and wherein the point sensor is configured to be movable along the reaction loop (C5/L54).

Regarding Claim 11, it is noted that gluing can be unglued to relocate the detector to another position. In addition, it is noted that said method claim does not recite movement step of the sensor.

O'Lear et al. and Pawliszyn are analogous because these references are directed to liquid analysis (Abstracts).

It would have been obvious to one of ordinary skill in the art at the time of the respective invention to combine movable point detection means, as taught by Pawliszyn, to the respective liquid analyzers, as taught by O'Lear et al. to provide a relocating detector function of optical fibers to study concentration gradient at different positions within the sampling location.

11. Claims 12, 13, 17 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Lear et al. (US 5,252,486).

Regarding Claim 12, O'Lear et al. disclose a system for analyzing a liquid sample (Abstract) comprising

- a reaction loop (e.g. coil of tubing, Fig. 1 (41), C12/L57-58) between the sample introduced through an inlet linked to a first input of a T-shaped branch (e.g. T-connector, Fig. 1 (35)) and at least one reagent (e.g. color-forming reagent, C12/L39), and

- detection means (e.g. colorimeter, Fig. 1 (49), C12/L68), characterized in that the reaction loop consists of a transparent pipe (C13/L2), and the outlet of which is connected to the reaction loop allowing doses of said at least one reagent to be delivered into this loop, and

- illumination means with which this reaction loop may be illuminated so that the detection means record levels of light transmitted through said loop after filtering (e.g. 600-850 nm filter, C4/L39), the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent.

However, O'Lear et al. fail to disclose the system with use of a push-syringe. As the reference is not limited to any specific examples of how liquid is being injected, it would have been obvious to one having ordinary art at the time the invention was made to substitute a regulator (Fig. 1 (13), C12/L39), regulating liquid flow to a reagent, as taught by O'Lear et al. with a push-syringe.

Regarding limitations recited in Claim 12 which are directed to specific functions of a detector recited in said claim, it is noted that a detector can not function without having an illumination means to fully function. Even though O'Lear et al. do not explicitly disclose an illumination means, however, it is inherent property for a detector to function with at least one illumination means. As evidence by applicant's admitted prior art, Hach (GB 967,586) discloses a lamp (Fig. 1 (60)) as an illumination means to be used with a colourimeter as detection means (Fig. 1 (15)). See MPEP § 2112.

Regarding Claims 13, 17 & 18, O'Lear et al. disclose all of the claim limitations as set forth above. In addition, O'Lear et al. further disclose the system, wherein:

- the transparent pipe is a transparent capillary or a microfluidic channel (e.g. internal diameter of 0.0125 cm, C5/L28);
- a microvalve (e.g. injection valve, Fig. 1 (21)) positioned upstream from the point of introduction of the sample into the reaction loop; and
- a T-shaped branch (e.g. T-connector, Fig. 1 (35)) is respectively connected to the sample inlet, to the push-syringe and to the reaction loop.

12. Claims 1, 2, 9, 12 & 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollema et al. (US 5,849,592).

Regarding Claim 1, Pollema et al. disclose a method for analyzing a liquid sample (Abstract) by injecting the latter in a reaction loop coupled with illumination means and detection means, characterized in that it comprises the following steps:

- filling a reaction loop with a minimum volume of the sample to be analyzed (C4/L44-47), through a first input and its output, this reaction loop (e.g. reaction coil, Fig. 4A (RC), C4/L49) sample forming a transparent pipe with which detection means (e.g. flow-through detector, Figs. 1-4 (D), C2/L53) are coupled;
- injecting at least one fixed volume of at least one reagent (e.g. reagent, (R), C4/L52) into the reaction loop via a second input;
- detecting levels of filtered light by the detection means (e.g. colorimeter, Claim 5), the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent; and
- discharging the reagents located in the reaction loop (e.g. waste, C12/L30).

Regarding Claim 1, a flow-through detector inherently has a transparent pipe as a part of its property. In addition, in order for a colorimeter to function, it is always used with a filtered light. As evidence by applicant's admitted prior art, Hach (GB 967,586) discloses a liquid analyzing system utilizing a colourimeter (Fig. 1 (15)) with a colour filter (Fig. 1 (63)) as detection means. Furthermore, it is noted that a liquid analyzing system by means of injection inherently discharges its analyzed samples from the reaction loop. See MPEP § 2112.

Regarding Claim 1, Pollema et al. disclose a various required connecting tubing used (C1/L51-52), however, it is silent to the specific shaped branch used thereof. It is well known in the art that the connections can have a variety of shapes of configurations, including T-shaped, C-shaped (semi-circular), square, circular, rectangular, polygonal, etc. The change in configuration of shape of a device is obvious absent persuasive evidence that the particular configuration is significant. *In re* Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). It would have been obvious to one having ordinary skill in the art at the time of the invention to use a T-shaped branch to connect the sample inlet to the push-syringe in order to increase the efficiency of the flow as well as simplify the arrangement.

Regarding Claims 2 & 9, Pollema et al. further disclose the method, wherein:

- a concentration gradient is detected in the reaction loop (C1/L25-27); and
- linear detection (e.g. colorimeter, potentionmeter, Claims 5 & 6, respectively) is performed along the reaction loop so that it is possible to obtain a space and time plot of the reactions in the set, reaction loop and detection means.

Regarding Claim 9, with obtained information from the system, it is possible that the recited claim limitations can be achieved.

Regarding Claim 12, Pollema et al. disclose a flow-injection analysis system (Abstract) for analyzing a liquid sample comprising:

- a reaction loop (e.g. reaction coil, Fig. 4A (RC), C4/L49) between the sample introduced through an inlet (see valve (MPV) inlet in Fig. 4A) and at least one reagent (e.g. reagent, (R), C4/L52), and
- detection means (e.g. flow-through detector, Figs. 1-4 (D), C2/L53 & colorimeter, potentionmeter, Claims 5 & 6, respectively)), characterized in that the reaction loop consists of a transparent pipe, and
- in that said system comprises a push-syringe (e.g. syringe pump, Figs. 3A & 4A (SP)),
- the outlet (see valve (MPV) in Fig. 4A connecting to the (RC)) of which is connected to the reaction loop allowing doses of said at least one reagent to be delivered into this loop, and
- illumination means with which this reaction loop may be illuminated so that the detection means record levels of light transmitted through said loop after filtering, the levels being representative of the characteristics of the sample revealed by the mixture of the sample with the reagent.

Regarding Claim 12, a flow-through detector inherently has a transparent pipe as a part of its property. In addition, in order for a colorimeter to function, it is always used with a filtered light. As evidence by applicant's admitted prior art, Hach (GB 967,586) discloses a liquid analyzing system utilizing a colourimeter (Fig. 1 (15)) with a colour filter (Fig. 1 (63)) as detection means. Furthermore, regarding limitations directed to specific functions of a detector recited in said claim, it is noted that a colorimeter detector can not function without having an

illumination means to fully function. Even though Pollema et al. do not explicitly disclose an illumination means, however, it is inherent property for the detector to function with at least one illumination means. As evidence, Hach (GB 967,586) discloses a lamp (Fig. 1 (60)) as an illumination means to be used with a colourimeter as detection means (Fig. 1 (15)). See MPEP § 2112.

Regarding Claim 12, Pollema et al. disclose a various required connecting tubing used (C1/L51-52), however, it is silent to the specific shaped branch used thereof. It is well known in the art that the connections can have a variety of shapes of configurations, including T-shaped, C-shaped (semi-circular), square, circular, rectangular, polygonal, etc. The change in configuration of shape of a device is obvious absent persuasive evidence that the particular configuration is significant. *In re* Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). It would have been obvious to one having ordinary skill in the art at the time of the invention to use a T-shaped branch to connect the sample inlet to the push-syringe in order to increase the efficiency of the flow as well as simplify the arrangement.

Regarding Claim 16, Pollema et al. disclose all the claim limitations as set forth above. In addition, Pollema et al. disclose the system comprising a peristaltic pump allowing introduction of the sample (C1/L49-50, Figs. 1A-2B (PP)).

13. Claims 13, 15, 17 & 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pollema et al. (US 5,849,592) as applied to claim 12 above, and further in view of Pawliszyn (US 4,940,333).

Regarding Claim 13, Pollema et al. disclose all the claim limitations as set forth above. However, Pollema et al. fail to disclose the system comprising a capillary channel.

Pawliszyn discloses a system for analyzing liquid sample (Abstract) comprising:

- a reaction loop (e.g. sample chamber, Figs. 9 (54) & 10 (78), C9/L43 & C10/L25, respectively) between this sample introduced through an inlet (Fig. 9 (60), C9/L48) and at least one reagent (e.g. solvent, Fig. 9 (59)); and
- detection means (e.g. optical fiber, Fig. 10 (79 & 83), C10/L26 & 30);
- characterized in that the reaction loop consists of a transparent pipe (C5/L49); and
- the outlet (e.g. tubing, Fig. 9 (56)) of which is connected to the reaction loop allowing doses of said at least one reagent to be delivered into this loop; and
- illumination means (e.g. LED, Fig. 10 (82), C10/L29) with which this reaction loop may be illuminated so that the detection means record levels of light transmitted through said loop after filtering; and
- the transparent pipe is a transparent capillary or a microfluidic channel (e.g. capillary, Fig. 9 (51), C9/L41).

Pollema et al. and Pawliszyn are analogous because these references are directed to liquid analysis (Abstracts).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a capillary tube, as taught by Pawliszyn, to the liquid analyzers, as taught by Pollema et al., to further take the advantages of using low sample and reagent necessary to carry out the analysis.

Regarding Claim 15, Pawliszyn further discloses the system comprising:

- the detection means comprise two optical fibers (Fig. 10 (79 & 83), C10/L26 & 30) positioned on either side of the reaction loop.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine optical fibers as detection means, as taught by Pawliszyn, to the flow injection analyzer, as taught by Pollema et al., to add different detection properties of optical fibers since each detector has its own detection range.

Regarding Claim 17, Pawliszyn further discloses the system comprising:

- a microvalve (e.g. valve, Fig. 9 (57)) positioned upstream from the point of introduction of the sample into the reaction loop.

Regarding Claim 17, even though the primary reference is silent to the specific valve used, it would have been obvious to one of ordinary skill in the art at the time of the invention to

use a microvalve, as taught by Pawliszyn, since the system is directed to analyze liquid in small volumes which requires precise sample and reagent dispersions.

Regarding Claim 18, Pawliszyn further discloses the system comprising:

- a T-shaped branch (e.g. T, Fig. 9 (56, 57, 58, 60)) is respectively connected to the sample inlet, to the push-syringe and to the reaction loop.

Regarding Claim 18, the primary reference states a various required connecting tubing used (C1/L51-52), however, it is silent to the specific shaped branch used thereof. It is well known in the art that the connections can have a variety of shapes of configurations, including T-shaped, C-shaped (semi-circular), square, circular, rectangular, polygonal, etc. The change in configuration of shape of a device is obvious absent persuasive evidence that the particular configuration is significant. *In re* Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). It would have been obvious to one having ordinary skill in the art at the time of the invention to use a T-shaped branch to connect the sample inlet to the push-syringe in order to increase the efficiency of the flow as well as simplify the arrangement.

14. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pollema et al. (US 5,849,592) as applied to claim 12 above, and further in view of Petro et al. (US 6,584,832).

Regarding Claims 14, Pollema et al. disclose all the claim limitations as set forth above. However, Pollema et al. fail to disclose a detection means comprise a diode array.

Petro et al. disclose a flow-injection analysis system wherein:

- a reaction loop (see around detection cavity, Fig. 2B (131)) between sample introduced through an inlet (e.g. injection port, Fig. 2B (108)) and at least one reagent (e.g. additional injection port, Fig. 2B (108')); and
- in that said system comprises a push-syringe (e.g. syringe pump, C30/L4);
- the outlet (see Fig. 2B tubing post filter (104)) of which is connected to the reaction loop allowing doses of said at least one reagent to be delivered into this loop;
- the detection means comprise a diode array (e.g. photodiode array detector, Fig 2B (130), C21/L27); and
- a peristaltic pump allowing introduction of the sample (C30/L11).

Pollema et al. and Petro et al. are analogous because these references are directed to flow injection analysis (Abstracts).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine diode array as detection means, as taught by Petro et al., to the flow injection analyzer, as taught by Pollema et al., to add different detection properties of a diode array since each detector has its own detection range.

Response to Arguments

15. Applicant's arguments filed 01/21/2009 have been fully considered but they are not persuasive.

16. In response to applicant's argument that the reference fail to show certain features of applicant's invention:

- on Page 11 of the Remarks, O'Lear et al. do not disclose "the use of a T-shaped branch", it is noted that O'Lear et al. disclose a T-connector, C12/L39, Fig. 1 (35);
- regarding "the revealing of characteristics of the sample by the mixture of the sample with at least one reagent", it is noted that O'Lear disclose the sample being mixed with a color-forming reagent, C12/L38-39;
- regarding "the detection of concentration gradients in the reaction loop", it is noted that by taking results of changes in detected value over time, the system is fully capable of calculating a concentration gradient, see C11/L49-68;
- regarding "discharge of reagents in the reaction loop is performed by means of the remaining sample", it is noted that the system disclosed by O'Lear is a continuous flow system, therefore there is no gap in-between the samples where a previous sample is being discharged by subsequent sample;
- regarding "use of nitrogen", it is noted that nitrogen is being utilized by means of conveying the contents *from the containers*, in the process of operation, the each sample is discharged by the next sample; and
- regarding "linear detection", it is noted that in flow injection analysis, sufficient residence time is considered where it is necessary to record time as samples are being injected. Therefore, it is fully capable of linear detection of the sample.

17. In response to applicant's argument that Pollema et al. reference fail to show certain features of applicant's invention on Page 12, it is noted that applicant's amendment has a new grounds of rejection has been placed above.

18. In response to applicant's argument on Page 12 that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as disclosed by the applicant on P5/[0062], a point sensor consists of two optical fibers". It is noted that Pawliszyn discloses a detection system with optical fibers (C10/L26, 30 & Fig. 10 (79, 83)), and therefore shows the reason for combining or modifying the teaching of the prior art to produce the claimed invention. Regarding argument on Page 13, "glued component is not movable", it is noted that gluing can be unglued to relocate the detector to another position. In this instance, the claim only requires the ability of the component to be movable, but does not limit the manner in which is it movable. Absent any particular claim language to a use of a structure to move the point sensor, the language of "configured to be movable" is read as merely the ability to do so, thereby an act of gluing and ungluing encompasses a configured ability to meet the limitation.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean Kwak whose telephone number is 571-270-7072. The examiner can normally be reached on M-TH, 5 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tony G Soohoo/
Primary Examiner, Art Unit 1797

25Mar09

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